



1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/032,395A

DATE: 10/09/2003

TIME: 09:58:26

RECEIVED

OCT 14 2003

TECH CENTER 1600/2003

Input Set : A:\66692-042.TXT

Output Set: N:\CRF4\10092003\J032395A.raw

4 <110> APPLICANT: Hansen, Mark R.
 5 Kho, Richard
 6 Villar, Hugo O.
 8 <120> TITLE OF INVENTION: METHODS FOR DETERMINING POLYPEPTIDE
 9 STRUCTURE, FUNCTION OR PHARMACOPHORE FROM COMPARISON OF
 10 POLYPEPTIDE SEQUENCES
 12 <130> FILE REFERENCE: 66692-042(TB5067)
 14 <140> CURRENT APPLICATION NUMBER: 10/032,395A
 15 <141> CURRENT FILING DATE: 2001-12-21
 17 <160> NUMBER OF SEQ ID NOS: 4
 19 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 177
 23 <212> TYPE: PRT
 24 <213> ORGANISM: E. coli
 26 <400> SEQUENCE: 1
 27 Met Lys Gln Leu Thr Ile Leu Gly Ser Thr Gly Ser Ile Gly Cys Ser
 28 1 5 10 15
 29 Thr Leu Asp Val Val Arg His Asn Pro Glu His Phe Arg Val Val Ala
 30 20 25 30
 31 Leu Val Ala Gly Lys Asn Val Thr Arg Met Val Glu Gln Cys Leu Glu
 32 35 40 45
 33 Phe Ser Pro Arg Tyr Ala Val Met Asp Asp Glu Ala Ser Ala Lys Leu
 34 50 55 60
 35 Leu Lys Thr Met Leu Gln Gln Gln Gly Ser Arg Thr Glu Val Leu Ser
 36 65 70 75 80
 37 Gly Gln Gln Ala Ala Cys Asp Met Ala Ala Leu Glu Asp Val Asp Gln
 38 85 90 95
 39 Val Met Ala Ala Ile Val Gly Ala Ala Gly Leu Leu Pro Thr Leu Ala
 40 100 105 110
 41 Ala Ile Arg Ala Gly Lys Thr Ile Leu Leu Ala Asn Lys Glu Ser Leu
 42 115 120 125
 43 Val Thr Cys Gly Arg Leu Phe Met Asp Ala Val Lys Gln Ser Lys Ala
 44 130 135 140
 45 Gln Leu Leu Pro Val Asp Ser Glu His Asn Ala Ile Phe Gln Ser Leu
 46 145 150 155 160
 47 Pro Gln Pro Ile Gln His Asn Leu Gly Tyr Ala Asp Leu Glu Gln Asn
 48 165 170 175
 49 Gly
 53 <210> SEQ ID NO: 2
 54 <211> LENGTH: 147
 55 <212> TYPE: PRT
 56 <213> ORGANISM: S. aureas

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58 <400> SEQUENCE: 2

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59 Ser Thr Lys Val Val Asn Val Ala Val Ile Gly Ala Gly Val Val Gly
60 1 5 10 15
61 Ser Ala Phe Leu Asp Gln Leu Leu Ala Met Lys Ser Thr Ile Thr Tyr
62 20 25 30
63 Asn Leu Val Leu Leu Ala Glu Ala Glu Arg Ser Leu Ile Ser Lys Asp
64 35 40 45
65 Phe Ser Pro Leu Asn Val Gly Ser Asp Trp Lys Ala Ala Leu Ala Ala
66 50 55 60
67 Ser Thr Thr Lys Thr Leu Pro Leu Asp Asp Leu Ile Ala His Leu Lys
68 65 70 75 80
69 Thr Ser Pro Lys Pro Val Ile Leu Val Asp Asn Thr Ser Ser Ala Tyr
70 85 90 95
71 Ile Ala Gly Phe Tyr Thr Lys Phe Val Glu Asn Gly Ile Ser Ile Ala
72 100 105 110
73 Thr Pro Asn Lys Lys Ala Phe Ser Ser Asp Leu Ala Thr Trp Lys Ala
74 115 120 125
75 Leu Phe Ser Asn Lys Pro Thr Asn Gly Phe Val Tyr His Glu Ala Thr
76 130 135 140
77 Val Gly Ala
78 145

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81 <210> SEQ ID NO: 3

82 <211> LENGTH: 8

83 <212> TYPE: PRT

84 <213> ORGANISM: E. coli

86 <220> FEATURE:

87 <221> NAME/KEY: VARIANT

88 <222> LOCATION: 3

89 <223> OTHER INFORMATION: Xaa=any amino acid

91 <400> SEQUENCE: 3

W--> 92 Leu Gly Xaa Thr Gly Ser Ile Gly

93 1 5

96 <210> SEQ ID NO: 4

97 <211> LENGTH: 8

98 <212> TYPE: PRT

99 <213> ORGANISM: S. cerevisiae

101 <400> SEQUENCE: 4

102 Ile Gly Ala Gly Val Val Gly Ser

103 1 5

RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; Xaa Pos. 3



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OCT 14 2003

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/723,716B

DATE: 10/09/2003

TIME: 14:40:52

Input Set : A:\sequence.txt

Output Set: N:\CRF4\10092003\I723716B.raw

4 <110> APPLICANT: JAKOBSEN, Bent Karsten
 5 BELL, John Irving
 6 GAO, George Fu
 7 WILLCOX, Benjamin Ernest
 8 BOULTER, Jonathan Michael
 10 <120> TITLE OF INVENTION: Soluble T Cell Receptor
 12 <130> FILE REFERENCE: 102286.409DIV1
 14 <140> CURRENT APPLICATION NUMBER: US 09/723,716B
 15 <141> CURRENT FILING DATE: 2000-11-28
 17 <150> PRIOR APPLICATION NUMBER: US 09/335,087
 18 <151> PRIOR FILING DATE: 1999-06-17
 20 <150> PRIOR APPLICATION NUMBER: PCT/GB99/01588
 21 <151> PRIOR FILING DATE: 1999-05-19
 23 <150> PRIOR APPLICATION NUMBER: GB 9810759.2
 24 <151> PRIOR FILING DATE: 1998-05-19
 26 <150> PRIOR APPLICATION NUMBER: GB 9821129.5
 27 <151> PRIOR FILING DATE: 1998-09-29
 29 <160> NUMBER OF SEQ ID NOS: 85
 31 <170> SOFTWARE: PatentIn version 2.1
 34 <210> SEQ ID NO: 1
 35 <211> LENGTH: 33
 36 <212> TYPE: DNA
 37 <213> ORGANISM: Artificial Sequence
 39 <220> FEATURE:
 40 <223> OTHER INFORMATION: Description of Artificial Sequence: Forward poly-C
 41 "anchor" primer for PCR-amplification of cDNAs
 42 extended at their 3'-terminal with a stretch of
 43 G-residues using Terminal transferase. (Figure 4A)
 45 <400> SEQUENCE: 1
 46 taaataactcg aggcgcgccc cccccccccc ccc 33
 49 <210> SEQ ID NO: 2
 50 <211> LENGTH: 48
 51 <212> TYPE: DNA
 52 <213> ORGANISM: Artificial Sequence
 54 <220> FEATURE:
 55 <223> OTHER INFORMATION: Description of Artificial Sequence: Human TCR alpha
 56 chain constant region 3'-specific primer. (Figure
 57 4B).
 59 <400> SEQUENCE: 2
 60 atataacccg gggaaccaga tccccacagg aactttctgg gctgggga 48
 63 <210> SEQ ID NO: 3
 64 <211> LENGTH: 47
 65 <212> TYPE: DNA

ENTERED

RAW SEQUENCE LISTING

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PATENT APPLICATION: US/09/723,716B

TIME: 14:40:52

Input Set : A:\sequence.txt

Output Set: N:\CRF4\10092003\I723716B.raw

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66 <213> ORGANISM: Artificial Sequence
68 <220> FEATURE:
69 <223> OTHER INFORMATION: Description of Artificial Sequence: Human TCR beta
70   chain constant region 3'-specific PCR primer.
72 <400> SEQUENCE: 3
73 atataacccg gggaaccaga tccccacagt ctgctctacc ccaggcc          47
76 <210> SEQ ID NO: 4
77 <211> LENGTH: 33
78 <212> TYPE: DNA
79 <213> ORGANISM: Artificial Sequence
81 <220> FEATURE:
82 <223> OTHER INFORMATION: Description of Artificial Sequence: Human c-jun
83   leucine zipper 5'-specific PCR primer.
85 <400> SEQUENCE: 4
86 catacaccg ggggtagaat cgcccggctg gag          33
89 <210> SEQ ID NO: 5
90 <211> LENGTH: 50
91 <212> TYPE: DNA
92 <213> ORGANISM: Artificial Sequence
94 <220> FEATURE:
95 <223> OTHER INFORMATION: Description of Artificial Sequence: Human c-jun
96   leucine zipper 3'-specific PCR primer. (Figure
97   5B).
99 <400> SEQUENCE: 5
100 gtgtgtgctc gaggatccta gtagttcatg actttctgtt taagctgtgc      50
103 <210> SEQ ID NO: 6
104 <211> LENGTH: 39
105 <212> TYPE: DNA
106 <213> ORGANISM: Artificial Sequence
108 <220> FEATURE:
109 <223> OTHER INFORMATION: Description of Artificial Sequence: Human c-fos
110   leucine zipper 5'-specific PCR primer. (Figure
111   5C).
113 <400> SEQUENCE: 6
114 catacaccg ggggtctgac tgatacactc caagcggag          39
117 <210> SEQ ID NO: 7
118 <211> LENGTH: 49
119 <212> TYPE: DNA
120 <213> ORGANISM: Artificial Sequence
122 <220> FEATURE:
123 <223> OTHER INFORMATION: Description of Artificial Sequence: Human c-fos
124   leucine zipper 3'-specific PCR primer. (Figure
125   5D).
127 <400> SEQUENCE: 7
128 tgtgtgctcg aggatcctag taagctgccg ggaatgaactc tagtttttc      49
131 <210> SEQ ID NO: 8
132 <211> LENGTH: 120
133 <212> TYPE: DNA
134 <213> ORGANISM: Homo sapiens

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/723,716B

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TIME: 14:40:52

Input Set : A:\sequence.txt

Output Set: N:\CRF4\10092003\I723716B.raw

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136 <220> FEATURE:
137 <223> OTHER INFORMATION: Partial human c-fos sequence coding for the
138     leucine zipper domain as fused to TCR beta chains.
139     (Figure 6B).
141 <400> SEQUENCE: 8
142 ctgactgata cactccaagc ggagacagac caactagaag atgagaagtc tgctttgcag 60
143 accgagattg ccaacctgct gaaggagaag gaaaaactag agttcatcct ggcagcttac 120
146 <210> SEQ ID NO: 9
147 <211> LENGTH: 120
148 <212> TYPE: DNA
149 <213> ORGANISM: Homo sapiens
151 <220> FEATURE:
152 <223> OTHER INFORMATION: Partial human c-jun sequence coding for the
153     leucine zipper domain as fused to TCR alpha
154     chains. (Figure 6A).
156 <400> SEQUENCE: 9
157 agaatcgccc ggctggagga aaaagtgaaa accttgaaag ctcagaactc ggagctggcg 60
158 tccacggcca acatgctcag ggaacaggtg gcacagctta aacagaaagt catgaactac 120
161 <210> SEQ ID NO: 10
162 <211> LENGTH: 40
163 <212> TYPE: PRT
164 <213> ORGANISM: Homo sapiens
166 <220> FEATURE:
167 <223> OTHER INFORMATION: C-jun leucine zipper amino acid sequence as fused
168     to TCR alfa chains. (Figure 6A)
170 <400> SEQUENCE: 10
171 Arg Ile Ala Arg Leu Glu Glu Lys Val Lys Thr Leu Lys Ala Gln Asn
172   1           5           10           15
174 Ser Glu Leu Ala Ser Thr Ala Asn Met Leu Arg Glu Gln Val Ala Gln
175   .           20           25           30
177 Leu Lys Gln Lys Val Met Asn Tyr
178   35           40
182 <210> SEQ ID NO: 11
183 <211> LENGTH: 40
184 <212> TYPE: PRT
185 <213> ORGANISM: Artificial Sequence
187 <220> FEATURE:
188 <223> OTHER INFORMATION: C-fos leucine zipper amino acid sequence as fused
189     to TCR beta chains. (Figure 6B).
192 <400> SEQUENCE: 11
193 Leu Thr Asp Thr Leu Gln Ala Glu Thr Asp Gln Leu Glu Asp Glu Lys
194   1           5           10           15
196 Ser Ala Leu Gln Thr Glu Ile Ala Asn Leu Leu Lys Glu Lys Glu Lys
197   .           20           25           30
199 Leu Glu Phe Ile Leu Ala Ala Tyr
200   35           40
204 <210> SEQ ID NO: 12
205 <211> LENGTH: 26
206 <212> TYPE: DNA

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/723,716B

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Input Set : A:\sequence.txt

Output Set: N:\CRF4\10092003\I723716B.raw

207 <213> ORGANISM: Artificial Sequence
 209 <220> FEATURE:
 210 <223> OTHER INFORMATION: Description of Artificial Sequence: Forward PCR
 211 primer for mutating the unpaired cysteine of human
 212 TCR beta chains to serine (Figure 7A).
 214 <400> SEQUENCE: 12
 215 gactccagat acagcctgag cagccg 26
 218 <210> SEQ ID NO: 13
 219 <211> LENGTH: 8
 220 <212> TYPE: PRT
 221 <213> ORGANISM: Artificial Sequence
 223 <220> FEATURE:
 224 <223> OTHER INFORMATION: Amino acid sequence of the human TCR beta chain
 225 after mutating the unpaired cysteine to serine
 226 (Figure 7A).
 228 <220> FEATURE:
 229 <223> OTHER INFORMATION: Description of Artificial Sequence: Amino acid
 230 sequence of the human TCR beta chain after
 231 mutating the unpaired cysteine to serine (Figure
 232 7A).
 234 <400> SEQUENCE: 13
 235 Asp Ser Arg Tyr Ser Leu Ser Ser
 236 1 5
 240 <210> SEQ ID NO: 14
 241 <211> LENGTH: 26
 242 <212> TYPE: DNA
 243 <213> ORGANISM: Artificial Sequence
 245 <220> FEATURE:
 246 <223> OTHER INFORMATION: Description of Artificial Sequence: Backward PCR
 247 primer for mutating the unpaired cysteine of human
 248 TCR beta chains to serine (Figure 7B).
 250 <400> SEQUENCE: 14
 251 cggtgtctca ggctgtatct ggagtc 26
 254 <210> SEQ ID NO: 15
 255 <211> LENGTH: 26
 256 <212> TYPE: DNA
 257 <213> ORGANISM: Artificial Sequence
 259 <220> FEATURE:
 260 <223> OTHER INFORMATION: Description of Artificial Sequence: Forward PCR
 261 primer for mutating the unpaired cysteine of human
 262 TCR beta chains to alanine (Figure 7C).
 264 <400> SEQUENCE: 15
 265 gactccagat acgctctgag cagccg 26
 268 <210> SEQ ID NO: 16
 269 <211> LENGTH: 8
 270 <212> TYPE: PRT
 271 <213> ORGANISM: Artificial Sequence
 273 <220> FEATURE:
 274 <223> OTHER INFORMATION: Description of Artificial Sequence: Amino acid

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/723,716B

DATE: 10/09/2003

TIME: 14:40:52

Input Set : A:\sequence.txt

Output Set: N:\CRF4\10092003\I723716B.raw

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275     sequence of the human TCR beta chain after
276     mutating the unpaired cysteine to alanine (Figure
277     7C).
279 <400> SEQUENCE: 16
280 Asp Ser Arg Tyr Ala Leu Ser Ser
281   1           5
285 <210> SEQ ID NO: 17
286 <211> LENGTH: 26
287 <212> TYPE: DNA
288 <213> ORGANISM: Artificial Sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: Description of Artificial Sequence: Backward PCR
292     primer for mutating the unpaired cysteine of human
293     TCR beta chains to alanine (Figure 7D).
295 <400> SEQUENCE: 17
296 cggctgctca gagcgtatct ggagtc                               26
299 <210> SEQ ID NO: 18
300 <211> LENGTH: 57
301 <212> TYPE: DNA
302 <213> ORGANISM: Artificial Sequence
304 <220> FEATURE:
305 <223> OTHER INFORMATION: Description of Artificial Sequence: 5' PCR primer
306     for the human V alpha10.2 chain of the JM22
307     Influenza matrix peptide-HLA-A0201 restricted TCR.
308     (Figure 9A).
310 <400> SEQUENCE: 18
311 gctctagaca tatgcaacta ctagaacaaa gtcctcagtt tctaagcatc caagagg       57
314 <210> SEQ ID NO: 19
315 <211> LENGTH: 15
316 <212> TYPE: PRT
317 <213> ORGANISM: Homo sapiens
319 <220> FEATURE:
320 <223> OTHER INFORMATION: New N-terminal amino acid sequence of truncated V
321     alpha10.2 chain of the human JM22 Influenza matrix
322     peptide-HLA-A0201 restricted TCR. (Figure 9A).
324 <400> SEQUENCE: 19
325 Met Gln Leu Leu Glu Gln Ser Pro Gln Phe Leu Ser Ile Gln Glu
326   1           5           10           15
330 <210> SEQ ID NO: 20
331 <211> LENGTH: 39
332 <212> TYPE: DNA
333 <213> ORGANISM: Artificial Sequence
335 <220> FEATURE:
336 <223> OTHER INFORMATION: Description of Artificial Sequence: 5' PCR primer
337     for the human V beta17 chain of the JM22 Influenza
338     matrix peptide-HLA-A0201 restricted TCR. (Figure
339     9B)
341 <400> SEQUENCE: 20
342 gctctagaca tatggtggat ggtggaatca ctcagtcctc                               39

```

VERIFICATION SUMMARY

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DATE: 10/09/2003

TIME: 14:40:53

Input Set : A:\sequence.txt

Output Set: N:\CRF4\10092003\I723716B.raw

L:1314 M:259 W: Allowed number of lines exceeded, <223> Other Information: